

<b>FORM PTO-1449</b> U.S. Department of Commerce Patent and Trademark Office		Docket No.: JHU2010-1	Serial No.: 10/564,580
		Applicant(s): Philip A. Beachy <i>et al.</i>	Confirmation No.: 2018
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>		Filing Date: December 20, 2007	Group Art Unit: 1643

### U.S. PATENT DOCUMENTS

EXAM. INITIALS		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA	2002/0102646	08/01/2002	Beachy et al.	435	69.1	08/21/2001
	AB	2004/0082036	04/29/2004	Beachy et al.	435	69.1	10/01/2003
	AC	2004/0171533	09/02/2004	Zehentner et al.	514	012	02/28/2001
	AD	2005/0222087	10/06/2005	Beachy et al.	514	311	04/27/2005
	AE	2006/0128639	06/15/2006	Beachy, Philip A.	514	26	01/23/2006
	AF	2006/0142245	06/29/2009	Beachy et al.	514	63	11/11/2005
	AG	2006/0211114	09/21/2006	Beachy et al.	435	455	05/22/2006
	AH	2007/0105105	05/10/2007	Clelland et al.	435	006	12/15/2006
	AI	2007/0231828	10/04/2007	Beachy et al.	435	7.1	11/07/2006
	AJ	2007/0232661	10/04/2007	Beachy et al.	514	331	03/07/2007
	AK	2008/0057071	03/06/2008	Watkins et al.	424	158.1	01/23/2007
	AL	2008/0058298	03/06/2008	Beachy et al.	514	176	08/20/2007
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	AN	2008/0255059	10/16/2008	Beachy et al.	514	27	03/28/2008
	AO	2009/0186029	07/23/2009	Beachy et al.	514	012	05/18/2007
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### FOREIGN PATENT DOCUMENTS

EXAM. INITIALS		DOCUMENT NUMBER	DATE <i>mm/dd/yy</i>	COUNTRY	CLASS	SUB- CLASS	TRANSLATION (YES/NO)
	AT	WO 95/18856	07/13/1995	PCT	C12N		
	AU	WO 96/17924	06/13/1996	PCT	C12N		

### OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages)

	AV	Bale and Yu, "The Hedgehog Pathway and Basal Cell Carcinomas," <i>Human Molecular Genetics</i> , 10:757-762 (2001).
	AW	Bellusci et al., "Involvement of Sonic Hedgehog (Shh) in Mouse Embryonic Lung Growth and Morphogenesis," <i>Development</i> , 124:53-63 (1997).
	AX	Berman et al., "Medulloblastoma Growth Inhibition by Hedgehog Pathway Blockade," <i>Science</i> , 297:1559-1561 (2002).
	AY	Borges et al., "An Achaete-Scute Homologue Essential for Neuroendocrine Differentiation in the Lung," <i>Nature</i> , 386:852-855 (1997).
	AZ	Chen et al., "Inhibition of Hedgehog Signaling by Direct Binding of Cyclopamine to Smoothened," <i>Genes &amp; Development</i> , 16:2743-2748 (2002).
	BA	Chen et al., "Small Molecule Modulation of Smoothened Activity," <i>Proceedings of the National Academy of Sciences</i> , 99:14071-14076 (2002).
	BB	Cooper et al., "Teratogen-Mediated Inhibition of Target Tissue Response to Shh Signaling," <i>Science</i> , 280:1603-1607 (1998).
	BC	Cooper et al., "A Defective Response to Hedgehog Signaling in Disorders of Cholesterol Biosynthesis," <i>Nature Genetics</i> , 34:113 (2003), <i>Corrigenda</i> .
	BD	Cooper et al., "A Defective Response to Hedgehog Signaling in Disorders of Cholesterol Biosynthesis," <i>Nature Genetics</i> , 33:508-513 (2003).
	BE	Ericson et al., "Two Critical Periods of Sonic Hedgehog Signaling Required for the Specification of Motor Neuron Identity," <i>Cell</i> , 87:661-673 (1996).

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	<b>BF</b>	Freestone et al., "Sonic Hedgehog Regulates Prostatic Growth and Epithelial Differentiation," <i>Developmental Biology</i> , 264:352-362 (2003).
	<b>BG</b>	Fujita et al., "Involvement of Sonic Hedgehog in the Cell Growth of LK-2 Cells, Human Lung Squamous Carcinoma Cells," <i>Biochemical and Biophysical Research Communications</i> , 238:658-664 (1997).
	<b>BH</b>	Goodrich et al., "Altered Neural Cell Fates and Medulloblastoma in Mouse Patched Mutants," <i>Science</i> , 277:1109-1113 (1997).
	<b>BI</b>	Incardona et al., "The Teratogenic Veratrum Alkaloid Cyclopamine Inhibits Sonic Hedgehog Signal Transduction," <i>Development</i> , 125:3553-3562 (1998).
	<b>BJ</b>	Karhadkar, "Hedgehog Signaling in Prostate Regeneration, Neoplasia and Metastasis," <i>Nature</i> , 431:707-712 (2004).
	<b>BK</b>	Kenney and Rowitch, "Sonic Hedgehog Promotes G <sub>1</sub> Cyclin Expression and Sustained Cell Cycle Progression in Mammalian Neuronal Precursors," <i>Molecular and Cellular Biology</i> , 20:9055-9067 (2000).
	<b>BL</b>	Lamm et al., "Sonic Hedgehog Activates Mesenchymal Gli1 Expression During Prostate Ductal Bud Formation," <i>Developmental Biology</i> , 249:349-366 (2002).
	<b>BM</b>	Litingtung et al., "Sonic Hedgehog is Essential to Foregut Development," <i>Nature Genetics</i> , 20:58-61 (1998).
	<b>BN</b>	Lum and Beachy, "The Hedgehog Response Network: Sensors, Switches, and Routers," <i>Science</i> , 304:1755-1759 (2004).
	<b>BO</b>	Mann et al., "Novel Lipid Modifications of Secreted Protein Signals," <i>Annu. Rev. Biochem.</i> , 73:891-923 (2004).
	<b>BP</b>	Pepicelli et al., "Sonic Hedgehog Regulates Branching Morphogenesis in the Mammalian Lung," <i>Current Biology</i> , 8:1083-1086 (1998).
	<b>BQ</b>	Reya et al., "Stem Cells, Cancer, and Cancer Stem Cells," <i>Nature</i> , 414:105-111 (2001).
	<b>BR</b>	Ramalho-Santos et al., "Hedgehog Signals Regulate Multiple Aspects of Gastrointestinal Development," <i>Development</i> , 127:2763-2772 (2000).
	<b>BS</b>	Roberts et al., "Epithelial-Mesenchymal Signaling During the Regionalization of the Chick Gut," <i>Development</i> , 125:2791-2801 (1998).

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	<b>BT</b>	Taipale et al., "Effects of Oncogenic Mutations in Smoothened and Patched Can Be Reversed by Cyclopamine," <i>Nature</i> , 406:1005-1009 (2000).
	<b>BU</b>	Taipale and Beachy, "The Hedgehog and Wnt Signaling Pathways in Cancer," <i>Nature</i> , 411:349-354 (2001).
	<b>BV</b>	Taipale et al., "Patched Acts Catalytically to Suppress the Activity of Smoothened," <i>Nature</i> , 418:892-897 (2002).
	<b>BW</b>	Thayer et al., "Hedgehog is an Early and Late Mediator of Pancreatic Cancer Tumorigenesis," <i>Nature</i> , 425:851-856 (2003).
	<b>BX</b>	Wang et al., "Conditional Disruption of Hedgehog Signaling Pathway Defines its Critical Role in Hair Development and Regeneration," <i>J Invest Dermatol</i> , 114:901-908 (2000).
	<b>BY</b>	Watkins et al., "Hedgehog Signaling," <i>Cell Cycle</i> , 2:196-198 (2003).
	<b>BZ</b>	Watkins et al., "Hedgehog Signaling within Airway Epithelial Progenitors and in Small Cell Lung Cancer," <i>Nature</i> , 422:313-317 (2003).
	<b>CA</b>	Wechsler-Reya and Scott, "The Developmental Biology of Brain Tumors," <i>Annu. Rev. Neurosci.</i> , 24:385-428 (2001).
	<b>CB</b>	Zhang et al., "Synthesis and Anticancer Activity Studies of Cyclopamine Derivatives," <i>Bioorganic &amp; Medicinal Chemistry Letters</i> , 18:1359-1363 (2008).

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